

- 1 b. receiving the signal upon its return from the at least one computer; and
2 c. forming a profile characterizing the at least one computer based on information
3 provided by the signal.

1 3. (Amended) The method of claim 2, wherein the profile further comprises a round trip
2 time measure taken by the signal during its travel to and from the at least one computer.

1 4. (Amended) The method of claim 2, wherein the profile further comprises information
2 on a number of files contained within the at least one computer.

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1 5. (Amended) The method of claim 2, wherein the profile further comprises information
2 on an amount of content available to the network on the at least one computer.

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1 6. (Amended) The method of claim 2, wherein the profile further comprises information
2 on the at least one computer's capability to process a search query.

1 7. (Amended) The method of claim 2, wherein the profile further comprises information
2 on a number of connected computers encountered by the signal during its travel to and from the
3 at least one computer.

1 8. (Amended) The method of claim 2, wherein the profile further comprises information
2 on a number of additional computers connected to the at least one computer.

1 9. (Amended) The method of claim 2, wherein the profile further comprises information
2 on a frequency with which the plurality of computers are connected to the network.

1 10. (Amended) The method of claim 2, wherein the profile further comprises information
2 on which of the plurality of computers are currently connected to the network.

1 11. (Amended) The method of claim 1, further comprising:
2 a. collecting a plurality of statistical measures which characterize each of the

1 plurality of computers;

2 b. assigning a weighted score to each statistical measure for each of the plurality of
3 computers;

4 c. combining the weighted scores to obtain a rank for each of the plurality of
5 computers; and

6 d. ranking the plurality of computers according to the weighted scores.

1 12. (Amended) The method of claim 1, wherein said collecting data about a plurality of
2 computers within the network further comprises monitoring data exchanges between the plurality
3 of computers.

1 13. (Amended) The method of claim 1 further comprising storing the collected data in a
2 memory, wherein at least a portion of the collected data is content data which includes
3 information on the content data available for searching on the plurality of computers.

1 14. (Amended) The method of claim 13, further comprising:

2 a. removing the content data after a predetermined period of time;

3 b. sending a common user search query into the network on a periodic basis; and

4 c. storing a result of the common user search query in the memory.

1 15. (Amended) The method of claim 13, further comprising storing a portion of the
2 content data based on previous user requests.

1 16. (Amended) The method of claim 13, further comprising monitoring a current
2 connectivity status of each of the plurality of computers.

1 17. (Amended) The method of claim 16, further comprising:

2 a. collecting a plurality of statistical measures which characterize each of the

- 1 plurality of computers;
- 2 b. assigning a weighted score to each statistical measure for each of the plurality of
- 3 computers;
- 4 c. combining the weighted scores to obtain a rank for each of the plurality of
- 5 computers;
- 6 d. ranking the plurality of computers according to the weighted scores; and
- 7 e. selecting the selected computer based on the content data, the current connectivity
- 8 status and the ranks.

1 18. (Amended) The method of claim 13, further comprising storing a portion of the

2 content data which identifies a type of file available for searching on the plurality of computers,

3 wherein the selected computer is selected based in part on the type of file.

1 19. (Amended) The method of claim 1, further comprising selecting a second selected

2 computer based on the collected data and routing the search query from the user to the second

3 selected computer after a selective one of a predetermined period of time and a user request.

1 20. (Amended) The method of claim 2, wherein said sending a signal to at least one of the

2 plurality of computers further comprises sending the signal to a plurality of geographical

3 locations, wherein the geographical locations are selected based on their respective proximity to

4 the user.

1 21. (Amended) The method of claim 1, wherein said collecting data about the plurality of

2 computers within the network is performed periodically.

1 22. (Amended) The method of claim 1, wherein said collecting data about a plurality of

2 computers within the network further comprises:

- 3 a. collecting data about a predetermined number of the plurality of computers at a

- 1 first predetermined time interval;
2 b. ranking the computers based on the collected data;
3 c. retaining a set of hub computers which make up a predetermined percentage of the
4 plurality of computers that are most highly ranked; and
5 d. collecting data about only the set of hub computers at a second predetermined
6 time interval, wherein the second predetermined time interval is smaller than the
7 first predetermined time interval.

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1 23. (Amended) A system by which a user may establish an optimal connection to a peer-
2 to-peer computer network, comprising:

- 3 a. a monitor for measuring data about a plurality of computers within the network;
4 and
5 b. a selector for selecting at least one of the plurality of computers to be a selected
6 computer, based on the measured data, and which outputs a network location of
7 the selected computer to the user, to thereby allow the user to connect to the
8 selected computer.

1 24. (Amended) The system of claim 23, wherein said monitor further comprises:

- 2 a. a profiler which collects the measured data by sending a signal to at least one of
3 the plurality of computers and receiving the signal therefrom, to thereby form a
4 profile of the at least one of the plurality of computers; and
5 b. a database which stores the data collected by the profiler.

1 25. (Amended) The system of claim 24, wherein the profile further comprises a round trip
2 time measure taken by the signal during its travel to and from the at least one computer.

1 26. (Amended) The system of claim 24, wherein the profile further comprises information
2 on a number of files contained within the at least one computer.

1 27. (Amended) The system of claim 24, wherein the profile further comprises information

1 on an amount of content available to the network on the at least one computer.

1 28. (Amended) The system of claim 24, wherein the profile further comprises information
2 of the at least one computer's capability to process a search query.

1 29. (Amended) The system of claim 24, wherein the profile further comprises information
2 on a number of connected computers encountered by the signal during its travel to and from the
3 at least one computer.

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B 1 30. (Amended) The system of claim 24, wherein the profile further comprises information
2 on a number of additional computers connected to the at least one computer.

1 31. (Amended) The system of claim 24, wherein the profile further comprises information
2 on a frequency with which the at least one computer is connected to the network.

1 32. (Amended) The system of claim 24, wherein the profile further comprises information
2 on which of the plurality of computers are currently connected to the network.

1 33. (Amended) The system of claim 23, wherein the monitor is a computer within the
2 network, and further wherein at least a portion of the measured data is collected by monitoring
3 data exchanges in the network.

1 34. (Amended) The system of claim 23, further comprising a memory for collecting the
2 measured data wherein the measured data includes information on content available for searching
3 on the plurality of computers.

1 35. (Amended) The system of claim 34, wherein the memory removes the content data
2 after a predetermined period of time, further wherein the memory sends common user search
3 queries into the network on a periodic basis and stores the results.

1 36. (Amended) The system of claim 35, wherein a portion of the removed content data
2 identifies a type of file available for searching on the plurality of computers, the portion being
3 separately stored, further wherein the selected computer is selected based at least on the type of
4 file.

1 37. (Amended) The system of claim 34, wherein the memory stores a portion of the
2 content data based on previous user requests.

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1 38. (Amended) The system of claim 23, wherein the monitor determines a current
2 connectivity status for each of the plurality of computers, wherein the selected computer is
3 selected based on the content data and the current connectivity status.

39. (Cancelled)

1 40. (Amended) The system of claim 23, wherein the selector selects a second selected
2 computer based on the data, further wherein the selector outputs a network location of the second
3 selected computer to the user after a selective one of a predetermined period of time and a
4 response to a user request.

1 41. (Amended) The system of claim 24, wherein the profilers are located at a plurality of
2 geographical locations which are remote from one another, wherein the geographical locations
3 are selected based on their respective proximity to a user.

1 44. (Amended) The system of claim 23, wherein the host monitor collects data about a
2 predetermined number of the plurality of computers at a first predetermined time interval, the
3 host selector ranking the computers accordingly, and retaining a set of hub computers which
4 make up a predetermined percentage of the plurality of computers which are most highly-ranked,

1 and thereafter collects data about only the set of hub computers at a second predetermined time
2 interval, wherein the second predetermined time interval is smaller than the first predetermined
3 time interval.

1 45. (Amended) A computer program for enabling a computer system to optimally couple
2 to a peer-to-peer computer network, said computer program product utilizing a computer usable
3 medium having computer readable program code, said computer readable program code
4 comprising:

- 5 a. means for collecting data about a plurality of computers within the network,
6 including a network location of each of the plurality of computers;
7 b. means for selecting at least one computer to be a selected computer, based on the
8 collected data; and
9 c. means for routing search queries from the computer system to the selected
10 computer via the network location of the selected computer.

1 46. (Amended) The computer program of claim 45, wherein said means for collecting
2 data about a plurality of computers within the network further comprises:

- 3 a. means for sending a signal to at least one of the plurality of computers;
4 b. means for receiving the signal upon its return from the at least one computer; and
5 c. means for forming a profile characterizing the at least one computer, based on
6 information provided by the signal.

1 47. (Amended) The computer program of claim 45, further comprising:

- 2 a. means for collecting a plurality of statistical measures which characterize each of
3 the plurality of computers;
4 b. means for assigning a weighted score to each statistical measure for each of the
5 plurality of computers;
6 c. means for combining the weighted scores to obtain a rank for each of the plurality

1 of computers; and

2 d. means for ranking the plurality of computers according to the weighted scores.

1 48. (Amended) The computer program of claim 45 further comprising means for
2 monitoring data exchanges between the plurality of computers.

1 49. (Amended) The computer program of claim 48, further comprising:
2 means for storing the collected data in a memory, wherein at least a portion of the
3 collected data is content data which includes information on content available for searching on
4 the plurality of computers.

1 50. (Amended) The computer program of claim 49, further comprising:
2 a. means for removing the content data after a predetermined period of time;
3 b. means for sending a common user search query on a periodic basis; and
4 c. means for storing a result of the common user search query in the memory.

1 51. (Amended) The computer program of claim 49, wherein said means for storing stores
2 a portion of the content data based on previous user requests.

1 52. (Amended) The computer program of claim 49 further comprising means for
2 monitoring a current connectivity status of each of the plurality of computers, wherein the
3 selected computer is selected based on the content data and the current connectivity status.

1 53. (Amended) The computer program of claim 45 further comprising:
2 a. means for collecting a plurality of statistical measures for each of the plurality of
3 computers;
4 b. means for assigning a weighted score to each statistical measure for each of the
5 plurality of computers;

- 1 c. means for combining the weighted scores to obtain a rank for each of the plurality
2 of computers;
3 d. means for ranking the plurality of computers according to the weighted scores,
4 thereby producing a rank of each computer in the plurality; and
5 e. means for selecting the at least one computer based on the content data, the
6 current connectivity status and the rank.

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1 54. (Amended) The computer program of claim 45, further comprising means for sending
2 the signal to a plurality of geographical locations which are remote from one another, wherein the
3 geographical locations are selected based on their respective proximity to a user.

1 55. (Amended) A method for optimizing a computer's access to information, the method
2 comprising:

- 3 a. maintaining a first database which includes status information about a plurality of
4 computers within a network;
5 b. maintaining a second database which includes content information about the
6 plurality of computers within the network;
7 c. filtering the content information in second database using the status information
8 of the first database, at a time of a user request for information; and
9 d. accessing at least one computer within the network based on the filtered contents
10 of the second database.

1 56. (Amended) The method of claim 55 further comprising updating the status
2 information periodically, so that the status information is current.

1 57. (Amended) The method of claim 5 further comprising intercepting exchanges between
2 the plurality of computers within the network.

1 58. (Amended) The method of claim 55, wherein said filtering the contents of the second
2 database using the contents of the first database further comprises:

- 3 a. identifying computers in the network (identified computers) which are least likely
4 to provide information desired by the user, based on the status information; and
5 b. removing the content information from the second database which is stored on the
6 identified computers.

1 59. (Amended) The method of claim 58, wherein the status information includes a
2 frequency with which the identified computers are connected to the network.

1 60. (Amended) The method of claim 58, wherein the status information includes a current
2 connectivity status of the identified computers.

1 61. (Amended) The method of claim 57, wherein the status information includes a
2 download capability measurement of the identified computers.

1 62. (Amended) The method of claim 55, further comprising:

- 2 a. maintaining a third database which includes content information about the
3 computers within the network wherein the third database identifies the types of
4 files available for searching on the plurality of computers within the network;
5 b. filtering the content information of the third database using the content
6 information of the first database, at a time of a user request for information; and
7 c. accessing at least one computer within the network based on the filtered contents
8 of the third database.

- 1 63. (New) The system of claim 34, further comprising:
2 a. means for collecting a plurality of statistical measures for each of the plurality of
3 computers;
4 b. means for assigning a weighted score to each of the statistical measures; and
5 c. means for ranking the plurality of computers based on at least one of the weighted
6 scores for each of the statistical measures.

- 1 64. (New) A system for searching a peer to peer network based on a search query comprising:
2 a. means for collecting data about a plurality of computers within the network;
3 b. means for selecting a selected computer of the plurality based on the collected
4 data; and
5 c. means for routing the search query to the selected computer, wherein the selected
6 computer provides relevant information to the search query.